

**INTRODUCTION**

Federal and State laws and regulations **prohibit any hazardous waste from being disposed of to sewer in any amount** and they limit the allowable wastewater concentration of a number of specific substances. Facilities in San Diego County that generate hazardous waste are required to obtain a Unified Program Facility Permit from the County of San Diego Department of Environmental Health Hazardous Materials Division (HMD) and notify HMD prior to treating hazardous waste. Facilities which discharge wastewater to a city's sewage collection and treatment system, are required to first obtain an industrial wastewater permit from their local Publicly Owned Treatment Works (POTW).

**WHAT IS A HAZARDOUS WASTE?**

A *Hazardous Waste* exhibits one or more of the following properties: it can ignite, be corrosive, explode, or prove toxic to living organisms. Many wastes are listed by name in Federal law or State regulation and some must be tested to determine if the waste is hazardous. See Chapter 2 for more specific information regarding hazardous waste determination.

**WHAT IS INDUSTRIAL WASTEWATER?**

Industrial wastewater is defined as any wastewater generated from any manufacturing, processing, institutional, commercial, or agricultural operation, or any operation that produces waste other than domestic or sanitary wastewater. Industrial wastewater is often divided into three categories:

- ✓ Indirect industrial wastewater discharges;
- ✓ Categorical industrial wastewater discharges; and
- ✓ General wastewater discharge prohibitions

**I. Indirect Industrial Wastewater Discharges**

Discharges of industrial wastewater or contaminated storm water to a sanitary sewer are referred to as indirect discharges and are regulated by local industrial pretreatment limitations. A typical municipal treatment plant uses biological treatment to remove toxic substances from the wastewater. Some industrial pollutants from a facility may harm collection and treatment system workers or may damage equipment. Therefore, a discharge permit or authorization from the local POTW may be required depending on the characteristics of the discharge.

**II. Categorical Industrial Wastewater Discharges**

The USEPA developed categorical discharge limitations for specific industries. In general, you are required to obtain a wastewater discharge permit if your facility produces wastewater from listed operations defined by USEPA. Categorical discharges are subject to both, federal and local limitations. Conditions of Industrial Discharge Permits include the most stringent limitations from both of them. Electroplating and metal finishing have categorical discharge limitations as established by USEPA.

**III. General Wastewater Discharge Prohibitions**

The USEPA has established a list of prohibited wastes that must not be discharged to the sewer in any amount. Examples of prohibited wastes include:

- ✓ Flammable, reactive, explosive, or radioactive substances
- ✓ Noxious or malodorous materials
- ✓ Medical or infectious wastes
- ✓ Solid or viscous materials which could cause obstruction to the flow or operation of the treatment plants
- ✓ Toxic substances
- ✓ Non-biodegradable oils
- ✓ Pollutants which result in the emission of hazardous gases

A complete list of prohibited wastes is included in your local Industrial Waste Control Ordinance and in your facility's Industrial Use Permit.

Illegal discharge of regulated or prohibited substances to the sewer can result in treatment plant upsets, poor quality of biosolids, corroded pipes, exploding sewer lines, and emission of noxious fumes. Illegal discharges may be subject to civil as well as criminal prosecution.

**HAZARDOUS WASTE TREATMENT OR PRETREATMENT OF INDUSTRIAL DISCHARGES**

The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater to a less harmful state prior to or in lieu of discharging or otherwise introducing such pollutants to a POTW is considered "Pretreatment". If the wastewater contains **hazardous waste characteristics or is a listed hazardous waste** prior to physical, chemical, or biological treatment, then the operator of the "**treatment**" facility needs to provide notification to the local Certified Unified Program Agency. This is classified as hazardous waste treatment, not pretreatment.

**PERMITTING OF ONSITE HAZARDOUS WASTE TREATMENT**

The Department of Toxic Substances Control (DTSC) developed a five-tiered program designed to match the notification requirements to the relative risk of the treatment process. Metal plating facilities generating and treating hazardous waste onsite, but exempt from the federal permitting requirements, will fall into one of the lower three tiers. These three tiers are as follow:

1. Permit by Rule (PBR)
2. Conditional Authorization (CA)
3. Conditional Exemption (CE)

Facilities treating hazardous waste generated onsite must submit the appropriate notification forms and supplemental information to HMD 60 days prior to operating a hazardous waste treatment unit.

### **INDUSTRIAL WASTEWATER DISCHARGE PERMITTING**

A facility's local POTW regulates all industrial discharges to the sanitary sewer system. Hazardous wastes may not be discharged to the POTW. Wastewaters that meet, or are treated to meet, POTW limitations may be discharged with a permit. Individual POTW requirements differ greatly. Limits are typically set for metals, organics, pH, etc. Permits typically require inspections, record keeping, sampling, and monitoring. **A facility should contact its local POTW for specific information.** Ask for the Industrial Waste or Source Control section.

### **QUESTIONS AND ANSWERS**

1. **How do I know if the waste treated onsite is hazardous?**

Classifying the type of waste generated onsite is the responsibility of the generator; however, HMD will provide assistance whenever possible. It is important to be familiar with the hazardous waste definitions and generator requirements found in the California Code of Regulations (CCR) and the California Health and Safety Code (CAHSC).

2. **If I have an Industrial Wastewater Discharge Permit from my local POTW, why am I required to have a Hazardous Waste Onsite Treatment Permit?**

**Hazardous waste treatment regulations are separate** from the wastewater discharge regulations imposed by the local POTW. You must obtain a permit, or grant of authorization, from the appropriate regulatory agency before you treat any hazardous waste. **All hazardous waste treatment activities require a permit or grant of authorization**, unless the waste treated is **non-hazardous (treated to meet POTW limits only)** or the hazardous waste meets recycling exclusions.

Examples of hazardous waste treatment include: pH adjustment, metal precipitation, sludge dewatering or filter pressing, flocculation, reduction of chrome 6+, electro-winning of cyanide-bearing wastes, cyanide destruction, evaporation of liquid wastes by addition of heat or chemicals, or any other activity designed to change the hazardous characteristics or properties of the waste, or reduce its volume. You may contact HMD for assistance with obtaining the appropriate permit to treat your hazardous wastes. **Only DTSC can issue permits for the treatment of extremely hazardous waste.** Thus, the treatment of rinse waters containing cyanide, plating bath residues containing cyanide, or plating bath filters containing cyanide, all require a permit or grant of authorization from DTSC.

3. **Now that I know the waste generated and treated onsite is hazardous, how do I determine which tier applies to my treatment unit?**

Determining the proper tier requires consideration of factors such as the type of hazardous waste generated, the treatment technology used, and the monthly volume treated. The DTSC has developed flowcharts to aid businesses in determining which authorization tier is appropriate.

These flowcharts and the official forms to notify HMD with regards to hazardous waste treatment are available at the following website:

[http://www.sdcounty.ca.gov/deh/hazmat/hmd\\_forms.html#onsitetreatment](http://www.sdcounty.ca.gov/deh/hazmat/hmd_forms.html#onsitetreatment)

**If the hazardous waste streams treated are not found on the flow chart, or if the treatment methods you intend to use are not listed for your waste streams, authorization for treatment units must be obtained from the DTSC.**

## **REFERENCES:**

**Wastewater Discharge Regulations** include:

1. Local Industrial Waste Discharge Regulations
2. 40CFR, Part 403 (Federal Pretreatment Regulations)
3. 40CFR, Parts 405-471 (Federal Categorical Standards)